

Attorney Docket 7216-004US REG

**Section 5. Remarks and Response to Rejections:****REMARKS**

Reexamination and reconsideration of this case is respectfully requested in view of the amendments to the claims and the following remarks.

**Status of Pending Claims:** Claims 1 - 14 remain in this case. Claims 1, 3 - 6 and 8 - 14 have been amended. No claims have been cancelled; no new claims have been added.

**Amendment to the Specification; No New Matter Has Been Added:**

The Specification at page 3, line 18 has been amended to correct the spelling of "bonds" to read -- bends --. No new matter is added by correction of a typo.

The Specification at pages 6, line 9 and page 7, line 1, has been amended to clarify that the orienting member is square in cross section. Support for the correction of "rectangular" on page 6 is found on page 7, line 1 and in Figures 3 - 7. The square cross-section is the more accurate description, and does not amount to new matter as being described and shown as such throughout the Specification.

**Amendments to the Claims; No New Matter Has Been Added:**

Claims 1, 3 - 6 and 8 - 14 have been amended to more clearly point out and distinctly claim the inventive bending apparatus, its use with a vice and the method of precise orthogonal bending, particularly in cases of sequential bending.

The main claim 1 has been amended to more clearly define the orienting member 142 and its side faces 143 (see Fig. 2) as oriented at 45° to the bending plane, which is defined as the plane of the arcuate channel 120. This unique feature of the improved bending apparatus permits precise bending, particularly when chucked in a vice and for multiple sequential bends, as shown in Fig 7 and the accompanying text.

Main claim 1 has been amended in the preamble and parts a) and c) to provide the appropriate orientation references and antecedent basis for the recitations in part e). In addition, the connecting member element recitation, formerly the third element in the claim has been moved to be the fourth element, because of the need for proper antecedent basis in the recitation of the support handle, the bending handle and the die elements.

Finally, the language of the claim has been amplified for improved readability. Part e) includes the results of the functional relationships and orientation of the parts, now reciting "that sequential bends oriented in planes at substantially precise orthogonal relationship to each other can

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be made by alternately clamping adjacent sides of said square orienting member in a fixed position during bending". Thus, by clamping the orienting member in a vice that is properly secured, the bending plane is automatically vertical or horizontal, and a precise bend can be made. The workpiece or the orienting member can be rotated 90° for a subsequent bend and the result will be precise orthogonal bends, which is not possible or consistently so where the bending tool has round handles.

These similar amendments to main claims 1, 6, 11, 13 and 14 provide more clear recitation of the parts and their orientation with respect to each other so that the improved functionality can be achieved. These features are supported throughout the Figures and the accompanying text in the Specification, the language of the amendments to the claim being word descriptions of what is clearly shown in the Figures. Thus, the amendments to the claims are NOT directed to a different invention, it being clear from a review of the Application as a whole that the descriptive language used in the claims is accurate as to the invention, complies with the description requirements of §112, and thus is not new matter.

In this regard, the law is as stated by the Court of Appeals for the Federal Circuit in reversing a §112 lack of support rejection, in *In re Wright*, 866 F.2d 422, 9 USPQ2d 1649 (Fed. Cir. 1989) "the claimed subject matter need not be described in haec verba in the specification in order for that specification to satisfy the description requirement". The Court quoted from *In re Smith*, 481 F.2d 910, 914, 178 USPQ 620, 624 (CCPA 1973), and cited *In re Ruschig*, 54 CCPA [1551] at 1559, 379 F.2d [990] at 996, 154 USPQ [118] at 123.

The dependent claim series 3 – 5 and 8 – 10 have been amended in similar fashion. Claims 3 and 8 were clarified to refer to said workpiece and that the index markings determine the angular amount of bend. This is a more accurate description than measuring the amount of bend. Claims 4 and 9 have been amended to recite that the orienting member axis lies in the bending plane, which is evident from Figs 2 and 5. Claims 5 and 10 have been amended to recite that the workpiece engaging portion is offset from the handle, again as seen in the Figs, note the offset 126 in Fig. 2.

As noted Claim 6 has been amended similarly to Claim 1, and in addition, the vice jaws are defined as opposed V-shaped and the square cross section shape of the orienting member complements and is received in the gap between the jaws. This is best seen in Fig. 4 and accompanying text. Thus, there are selected orientations in which the bending tool can be held in the vice which orientations are orthogonal to each other for precise bending. See Figs 3, 5, 6 and 7, and accompanying text.

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Method claims 11 and 12 have been amended similar to Claims 1 and 6 with respect to the orienting member in step a) v). The attaching of the bending apparatus is thus in only one of two orientations as determined by the orienting member.

**Claim 12 directed to sequential bending method was only objected-to in the Office Action and presumably deemed allowable.** Since it is thought that the amendments to main Method Claim 11 make it allowable, Claim 12 was amended to specify the rotation of the bending apparatus to the second orthogonal orientation, and the bending step in this orientation produces a second angular bend in a plane 90° to the first bend. Thus the method claims are directed to precise bending with defined orientations.

The typographical error "90E" was corrected in steps b) and e) of claim 12 by replacing "E" with the degree symbol.

Claims 13 and 14 have also been amended to more clearly recite the square cross section of the orienting means and the orthogonal relationship of the sides being set at 45° to the bending plane. This is clear from Fig. 2.

Accordingly no new matter has been introduced by the clarifying amendments to the claims and entry of the amendments is respectfully requested. No fee is due as no new claims have been added.

**The §102 Prior Art Rejection – Claims 1, 3, 5, 10 and 13 are Not Anticipated by Zales**

Claims 1, 3, 5, 10 and 13 have been rejected as anticipated by Zales 2,757,562. It is Applicant's view that these claims are not anticipated by the structure of Zales, particularly the claims as amended herewith.

The law governing an anticipation rejection under 35 US Code, §102 requires all elements be shown in a single reference, here Zales. The CAFC stated the requirement in Structural Rubber Products Co. v. Park Rubber Co., 749 2d 707, 223 U.S.P.Q. 1264 (Fed. Cir. 1984) "Anticipation requires the presence in a single prior art disclosure of all elements of a claimed invention arranged as in the claim", citing Connell v. Sears, Roebuck & Co., 722 F.2d 1542, 220 U.S.P.Q. 193 (Fed. Cir. 1983). Similarly, the CAFC stated in RCA Corp. v. Applied Digital Systems, Inc., 730 F.2d 1440, 1444, 221 U.S.P.Q. 385, 388 (Fed. Cir. 1984): "This court has repeatedly stated that ... lack of novelty [i.e., "anticipation"] can only be established by a single prior art reference which discloses each and every element of the claimed invention."

Thus, the requirement is not only that each and every element be expressly shown in the

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reference, but *also they must be arranged in the same way as claimed and perform the same function*. Zales fails that test here as set forth in detail below, with the result that the rejection is unsound and should be withdrawn.

Zales merely incidentally shows flattened bar stock to form a handle end 13 of his tool. As noted from comparing Figs. 1, 3 and 4 of Zales, the handle end 13 is merely flattened round stock, just as is the forward end of the handle where the bending die 10 is fastened to the handle by pivot pin 19. That is, the shading on both ends of the bar stock in the flattened area clearly shows a chamfer, or what is left of the round stock after flattening (presumably in a press). As such the rounded short sides are not precise. In addition, it is clear from Zales Figs 1, 3, and 4 that the cross section of the flattened area is not square as called out in these amended claims.

Thus, the Zales device cannot be oriented precisely in a vice for the precise alternate orientation of sequential bends in planes orthogonal to each other. Since Zales never discussed the problem, his flattened handle does not provide the solution.

Zales does not have an offset support handle as called for in the claims. In addition, unlike Zales, the square cross section of the claimed tool orienting member is oriented 45° to both the bending plane and to the plane of the handle flat of Zales.

There is no teaching in Zales of the context of use. That is, the reference is entirely silent, both as to words and as to drawings as to how the flat handle section 13 would be used to produce precisely oriented sequential bends that are orthogonal to each other.

Rather, Applicant teaches and claims an entire workpiece bending system that employs as a key element a square cross section orienting member attached to the support handle that automatically orients the bending plane either horizontal or vertical, and also can permit sequential orthogonal bending. That is not taught or disclosed by Zales. The Zales reference is absolutely silent as to orientation. Zales did not expressly disclose and therefore could not teach the orthogonal orientation for precise or sequential bending.

Nor does Zales disclose any dimensional relationship to a vice or the alternate orientation of the orienting member in the vice jaws that complement the shape of the orienting member of the claimed tool.

The rejection is unsound and should be withdrawn, particularly in view of the clarifying amendments to these claims presented herewith.

**The §103 Rejections Over Zales, Kalanish and Godin Are Unsound –**

**They Should Be Withdrawn:**

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The Detailed Action makes §103 obviousness rejections of claims 2, 4-6, 9, 11 and 14 over the **Zales, Kalanish and Godin** references. In Applicant's view, these rejections are based on improper hindsight after a review of Applicant's Specification and Drawings, not an independent review of the references. As such, the rejections are unsound and should be withdrawn.

The references will be discussed below in order of presentation in the Office Action. It is Applicant's position that upon reconsideration in view of these remarks, the rejections will be seen to be clearly inapposite and should be withdrawn.

However, as a preliminary in order to clarify and be able to make a full response, Applicant must first identify the pertinent legal principles that apply. The fundamental principle, as articulated by the Court of Appeals for the Federal Circuit in *In re Gordon*, 221 USPQ 1125 (Fed. Cir. 1984), is that the prior art must suggest the combination of references. In *Gordon*, the Court rejected the idea that the prior art devices could be modified to produce the claimed device as a proper basis for an obviousness rejection, holding the combination is not proper unless the prior art suggests the desirability of such a modification. In *SmithKline Diagnostics, Inc. v. Helena Laboratories Corp.*, 8 USPQ2d 1468 (Fed. Cir. 1988), the Court held that to pick and chose elements from references to recreate the invention is not proper. And in *Northern Telecom, Inc. v. Datapoint Corp.*, 15 USPQ2d 1531 (Fed. Cir. 1990), cert. denied, 498 U.S. 920 (1990), the Court held that [parenthetical note and emphasis supplied]: "[i]t is insufficient that the prior art [references in the aggregate] disclosed the components of the patented device, either separately or used in other combinations; there must be some teaching, suggestion, or incentive to make the combination made by the inventor." (Emphasis added).

These governing principles were applied by the Court in holding in error the obviousness rejections in *In re Bond*, 15 USPQ2d 1566 (Fed. Cir. 1990) and *In re Mills*, 16 USPQ2d 1430 (Fed. Cir. 1990). *In re Mills* specifically held that although the prior art device could be modified to run the way the applicant's device was claimed to run, "there must be a suggestion or motivation in the reference to do so", 16 USPQ2d 1430. Since there was none, the rejection was in error and was reversed. More recently, in *Sensonic, Inc. v. Aerosonic Corp.*, 38 USPQ2d 1551 (Fed. Cir. 1996), the Court reiterated this principle, holding *there was no teaching or suggestion in the prior art that would have led a person skilled in the art to select the specific mechanical and electrical structures and concepts and combine them in the manner of the invention of that case*.

As a further principle, both the Courts and the Board of Appeal have long held that the suggestion for the combination in the references cannot come from the Applicant's Specification,

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see, for example, *Ex parte Brack*, 134 USPQ 445 (POBA 1961). The reason is simple: Applicant's Specification is not prior art. *A pplicant's specification cannot be used as a parts-list to search for disparate components in the art, and then used again as a blueprint to assemble the selected parts.* The sources for the motive to select the parts and to reassemble them to obtain the claimed structure having the specified functions and results must come from the references.

As seen below, the above principles were not followed in this Office Action. The result is that the rejections are unsound and should be withdrawn. With these governing principles in mind, we look at the references applied in the Office Action.

Zales has been discussed above. It remains the principle reference. It is significant that it is entirely silent on its context or manner of use. As noted above, it is directed to a special type of connection between the handles and the bending die. There is no discussion of any special use of the flattened section 13 of the handle. The important point is that the Office can make nothing of the silence of Zales. Zales, in short, can not be the source for the motive to select any parts or orientations out of any other reference, nor the converse: Zales can not suggest to any other secondary reference the motives for combination missing from those secondary references.

This brings up still another governing principle: *The Office cannot rely on presumption, supposition, blind eyes, broad brushes or phantom prior art in supplying missing teachings.* The Office Action is not permitted to make any assertion that is unsupported by fact. That is wishful thinking and an entirely improper basis for making any rejection. Thus, the repeated statement that: "to have provided" or "to have made" or "such provision" . . . (whatever) . . . "would have been obvious" or is "an obvious choice", amounts to deeming the claimed invention is obvious, a reliance on phantom prior art.

Thus, the statements about obvious choice to have provided some feature for an undisclosed purpose is a reliance by the Office on phantom prior art, a mere "deeming" the invention is obvious without a shred of factual basis in the reference. That is clearly improper.

The Board of Patent Appeals and Interferences does not condone that approach, stating in *Ex parte Stern*, 13 USPQ 2d 1379 at 1381:

"The examiner should be aware that "deeming" *does not discharge him from the burden of providing the requisite factual basis and establishing the requisite motivation to support a conclusion of obviousness.* [Citing cases] The examiner's reference to unidentified phantom prior art techniques falls far short of the mark. [Citing cases] *Accordingly, the examiner's rejection* of the appealed claims under 35 USC 103 as

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unpatentable over any of the primary references, considered singly, *is reversed.*"

Thus, any §103 rejection based on such an approach could not be sustained as it would be lacking any factual basis. Mis-readings of any reference, or readings of fact or motive into any reference, does not sustain the Examiner's burden and cannot form support for the rejection.

Kalanish merely shows a double offset die (his mandrel 12) and former rolls 32. That's where it goes into some detail about the construction. As an incident of his offset heads for the mandrel and the former rolls, he needs to offset his tubular handle 24 from tubular handle 38 so that the workman's hands do not interfere with each other and a full 180° bend can not be imparted to the tubing, see Fig. 4. Perhaps the best combination of Kalanish and Zales is to provide former rolls in Zales, or round handles in Zales, or angular offset for the bending handle. But none of those is the claimed invention, and to only focus on the laterally offset handle in Kalanish is not logical as the handles in Zales do not need to be offset laterally, as they clear each other as seen from Fig 3 in Zales. Clearly Kalanish does not point to Zales or any other reference.

Godin is merely a complex bender stand having a single, vertically oriented vice (Figs 1 & 2). It fails to show any bending tool in the context of use. The only source for orthogonal orientation comes from Applicant's specification, and that is improper, as noted by the case law cited above.

Neither Kalanish or Godin cure the defects in Zales, much less teach or suggest the claimed elements, features, purpose or results alone or in combination with Zales. Clearly, the assertions of the rejections are hindsight and an improper use of Applicant's Specification as prior art. See, e.g., Ex Parte Brack, 134 USPQ at 445.

In essence, the Office Action simply asserts it is an obvious matter of choice to select disparate, isolated, incidental elements out of the various references and combine them, absent any suggestion, need, or motivation provided by any of the references. That is not the law and is improper, since the Rejections obviously use Applicant's specification as prior art. As discussed at the beginning of these Remarks, the suggestion must come from the prior art itself. Ex parte Brack, 134 USPQ 445. The rejections obviously select only certain elements from one or another of the three references, and only certain elements from the others, improperly using Applicant's Specification as the source of the parts list for the selection. Then the Rejection compounds the error by using Applicant's specification as a blueprint from which to assemble these parts in what the Office Action argues is an obvious matter of choice combination. This is inappropriate as Applicant's specification is not prior art and there is no suggestion in any of the references for either

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the selection or the combination.

None of the references is concerned with tools for automatic horizontal or vertical bending and for orthogonal sequential bending, or even appreciates that anything other than the conventional imprecise bending approach is to be used. Accordingly, none of these references taken alone or in combination can anticipate or render obvious Applicant's invention. Nor does one reference point to the other as to the claimed features or the critical orthogonal orientation. That is, the suggestion for any combination, since they are each silent on the claimed features obviously must come from Applicant's specification. As we see from the principles cited above, that is improper, and the rejection must be withdrawn. These points apply equally to all nineteen rejection combinations, and they all should be withdrawn.

The remaining cited references Winton, Gryniwicz and Sutcliffe do not cure the defects of the references applied in the rejection for the reasons given above.


Quite simply the Office has failed to point to any teaching in any of the references what parts to pick, to the exclusion of others, and how to assemble them to form the claimed combination. The rejections fail and should be withdrawn.

#### Conclusion

As shown by a comparison of the elements of the claims, the Zales patent does not anticipate, suggest nor make obvious the claimed inventions, and the secondary references of Kalanish and Godin do not cure the defects or supply the necessary teachings to make the combination of features as claimed. Accordingly, it is urged that all 14 of the claims in the case are now in allowable condition, and favorable action is requested.

Respectfully submitted,  
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End of Section 5, Remarks.